

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method for speech recognition, comprising the steps of:
generating a set of likely hypotheses using a speech recognition method for ~~in~~
recognizing speech;
rescoring the likely hypotheses by using sentence based semantic content and lexical content by employing a semantic structured language model which combines a semantic language model and a lexical language model wherein the semantic structured language model is trained by including a unigram feature, a bigram feature, a trigram feature, a current active parent label (Li), a number of tokens (Ni) to the left since current parent label (Li) starts, a previous closed constituent label (Oi), a number of tokens (Mi) to the left after the previous closed constituent label finishes, and a number of questions to classify parser tree entries, wherein the questions include a default, (wj-1), (wj-1, wj-2), (Li), (Li, Ni), (Li, Ni, wj-1), and (Oi, Mi), where w represents a word and j is and index representing word position; and
scoring parse trees to identify a best sentence according to the sentences' parse tree by employing semantic information and lexical information in the parse tree to clarify the recognized speech.
2. (Original) The method as recited in claim 1, further comprising the step of training a language model using speech recognition methods.
3. (Original) The method as recited in claim 1, wherein the set of likely hypotheses is in

the form of an N-best list or lattice.

4. (Previously Presented) The method as recited in claim 1, wherein the step of rescoreing employs maximum entropy method 2 (MELM2) or maximum entropy method 3 (MELM3) semantic structured language models.

5- 7. (Cancelled)

8. (Original) The method as recited in claim 1, further comprising the step of determining a confidence measurement.

9. (Original) The method as recited in claim 8, wherein the step of determining a confidence measurement includes employing a statistical method to combine word sequences with a parser tree to determine a confidence score for recognized speech.

10. (Previously Presented) The method as recited in claim 8, wherein the step of determining a confidence measurement includes employing scores obtained from the semantic structured language model along with other speech recognition based features.

11. (Original) The method as recited in claim 1, further comprising the step of extracting probabilities assigned to tags, labels and extensions obtained from a parser tree.

12. (Previously Presented) The method as recited in claim 11, further comprising the step of combining the semantic structured language model and speech recognition based features with the extracted probabilities.

13-16. (Cancelled)

17. (Currently Amended) A program storage ~~device~~ medium readable by machine, tangibly embodying a program of instructions executable by the machine and stored on the medium to perform method steps for speech recognition, in accordance with claim 1.

18. – 31. (Cancelled)

32. (Currently Amended) The system as recited in claim ~~44~~ 31, wherein the parser tree includes semantic information and classer information used in identifying a best parser tree for a given word group.

33. (Currently Amended) The system as recited in claim ~~44~~ 31, wherein the parser tree includes information extracted from parsed sentences to statistically model semantic and lexical content of sentences.

34. (Cancelled)

35. (Currently Amended) The system as recited in claim ~~44~~ 34, wherein the semantic language model includes one or more of relative labels, token numbers, and answers to questions related to word order or placement.

36. (Cancelled)

37. (Currently Amended) The system as recited in claim ~~44~~ 36, wherein the questions include a default, (wj-1), (wj-1, wj-2), (Li), (Li, Ni), (Li, Ni, wj-1), and (Oi, Mi), where w represents a word and j is an index representing word position.

38. (Cancelled)

39. (Currently Amended) The system as recited in claim ~~44~~ 38, wherein the semantic model is trained by including history parameters and history questions wherein the history parameters include a previous word (wj-1), a previous word of the previous word (wj-2), a parent constituent label (L), a number of tokens (N) to the left since L starts, a previous closed constituent label (O), a number of tokens (M) to the left after O finishes, and a grandparent label (G).

40. (Original) The system as recited in claim 39, wherein the history questions include a default, (wj-1), (wj-1, wj-2), (L,N), (O,M), and (L,G).

41. (Currently Amended) The system as recited in claim ~~44~~ 31, further comprising a confidence measurement module.

42. (Currently Amended) The system as recited in claim ~~41~~ 31, wherein the confidence measurement module employs a statistical method to combine word sequences with the parse tree to determine a confidence score for recognized speech.

43. (Currently Amended) The system as recited in claim ~~41~~ 31, wherein the confidence measurement module extracts probabilities assigned to tag nodes, label nodes and extensions in the parse tree.

44. (New) A system for speech recognition, comprising:
a speech recognition engine configured to generate a set of likely hypotheses using a speech recognition method for recognizing speech;
a unified language model including a semantic language model and a lexical language model configured for rescoring the likely hypotheses to improve recognition results by using sentence-based semantic content and lexical content wherein the unified language model is trained by including a unigram feature, a bigram feature, a trigram feature, a current active parent label (Li), a number of tokens (Ni) to the left since current parent label (Li) starts, a previous closed constituent label (Oi), a number of tokens (Mi) to the left after the previous closed constituent label finishes, and a number of questions to classify parser tree entries, wherein the questions include a

default, (w_{j-1}) , (w_{j-1}, w_{j-2}) , (L_i) , (L_i, N_i) , (L_i, N_i, w_{j-1}) , and (O_i, M_i) , where w represents a word and j is an index representing word position to compute word probabilities; and

the speech recognition engine configured to score parse trees to identify a best sentence according to the sentences' parse tree by employing semantic information and lexical information in the parse tree to clarify the recognized speech.